



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

September 22, 2003

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Brooks Construction Co., Inc. / F 141-17410-00549

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 9/16/03



Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

**Brooks Construction Co., Inc.
727 S. Beiger Street
Mishawaka, Indiana 46544**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 141-17410-00549	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: September 22, 2003 Expiration Date: September 22, 2008

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary drum hot mix asphalt plant.

Authorized individual: Plant Operations Supervisor
Source Address: 727 S. Beiger Street, Mishawaka, Indiana 46544
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
General Source Phone: (260) 478-1990
SIC Code: 2951
Source Location Status: St. Joseph
Attainment for all criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD Rules;
Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) 92.5 million British thermal units per hour aggregate dryer, exhausting through the knockout box and baghouse and stack SV1, fired by natural gas or No. 2 or No. 4 distillate fuel oil.
- (b) One (1) drum mixer, exhausting through the knockout box and baghouse and stack SV1, capacity: 300 tons of hot mix asphalt per hour.
- (c) Two (2) liquid asphalt storage tanks, identified as 11A and 11B, heated by an insignificant 1.5 million British thermal units per hour oil heater, capacity: 20,000 gallons, each.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour (1.5 million British thermal units per hour oil heater).
- (b) Paved and unpaved roads and parking lots with public access.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

- (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted
- by this permit.
- (b) All previous registrations and permits are superseded by this permit.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;

- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
- (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ Northern Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Northern Regional Office: 574-245-4870, facsimile 574-245-4877

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not

stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
 - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:
- Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015
- and
- United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) **Emission Trades** [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios** [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

(e) The Permittee shall not operate this source concurrently with any other Brooks Construction Co., Inc., asphalt plant at the same location. The Permittee shall request a permit revision and obtain IDEM, OAQ, approval prior to any Brooks Construction Co., Inc., plant co-locating with this source.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on July 8, 2003. The plan is included as Attachment A.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and recordkeeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

- (c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.
- (d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within 180 days from the date on which this source commences operation).

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the source must comply with the applicable requirements of 40 CFR 68.

C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be 10 days or more until the unit or device will be shut down, then the permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date post-marked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.20 General Recordkeeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all recordkeeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years.

Stratospheric Ozone Protection

C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) 92.5 million British thermal units per hour aggregate dryer, exhausting through the knockout box and baghouse and stack SV1, fired by natural gas or No. 2 or No. 4 distillate fuel oil.
- (b) One (1) drum mixer, exhausting through the knockout box and baghouse and stack SV1, capacity: 300 tons of hot mix asphalt per hour.
- (c) Two (2) liquid asphalt storage tanks, identified as 11A and 11B, heated by an insignificant 1.5 million British thermal units per hour oil heater, capacity: 20,000 gallons, each.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-5.1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.1.1 Permit No Defense

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.1.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.1.3 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.4 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 60 Subpart I and 40 CFR 60 Subpart Kb.

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 2-8-4] [326 IAC 8-5-2]

- (a) The VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that less than 97.7 tons of VOC is emitted per twelve (12) consecutive month period, with compliance determined at the end of each month. This shall be achieved by limiting the total VOC solvent of any one selected binder as follows (when more than one (1) type of binder is used, the formula in paragraph 6 shall be applied):

- (1) Cutback asphalt rapid cure liquid binder usage shall be limited to less than 97.7 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (2) Cutback asphalt medium cure liquid binder usage shall be limited to less than 133 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (3) Cutback asphalt slow cure liquid binder usage shall be limited to less than 371 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (4) Emulsified asphalt with solvent liquid binder usage shall be limited to less than 199 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (5) Other asphalt with solvent liquid binder shall be limited to less than 3,712 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
- (6) The VOC solvent allotments in shall be adjusted when more than one (1) type of binder is used per twelve (12) month consecutive period, with compliance determined at the end of each month. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

- (7) Liquid binders used in the production of cold mix asphalt shall be defined as follows:
 - (A) Cut back asphalt rapid cure, containing a maximum of 25.3% VOC solvent by weight in the liquid binder, with 95% by weight of the VOC solvent evaporating.
 - (B) Cut back asphalt medium cure, containing a maximum of 28.6% VOC solvent by weight in the liquid binder, with 70% by weight of the VOC solvent evaporating.
 - (C) Cut back asphalt slow cure, containing a maximum of 20% VOC solvent by weight in the liquid binder, with 25% by weight of the VOC solvent

evaporating.

- (D) Emulsified asphalt with solvent, containing a maximum of 15% VOC solvent by weight in the liquid binder, with 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.
- (E) Other asphalt with solvent binder, containing a maximum 25.9% VOC solvent by weight in the liquid binder, with 2.5% by weight of the VOC solvent evaporating.

This will limit the potential to emit VOC to 97.7 tons per year from VOC usage, and the total source potential to emit VOC to less than 100 tons per year, including combustion. Thus, this limit will satisfy the requirements of 326 IAC 2-8-4, FESOP, and ensure that the source is a minor source pursuant to 326 IAC 2-2, PSD.

- (b) Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:
 - (1) penetrating prime coating;
 - (2) stockpile storage mix; and
 - (3) application during the months of November, December, January, February, and March.

D.1.6 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 2-8-4, the total use of No. 4 distillate fuel oil by the dryer burner shall be limited to no more than 2,640,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Each gallon of No. 2 distillate fuel oil used at the dryer burner or shall be considered equal to using 0.947 gallons of No. 4 distillate fuel oil. The sulfur content of the No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. This will limit SO₂ emissions from the use of distillate fuel oils to 99.0 tons per year and the potential to emit SO₂ from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply.
- (b) Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations), the SO₂ emissions from the aggregate dryer shall not exceed five tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

D.1.7 Particulate Matter (PM₁₀) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, the PM₁₀ emissions from the aggregate dryer/mixer shall not exceed 0.05 pound per ton of asphalt processed, equivalent to no more than 66.5 tons per year when operating at the maximum rate of 300 tons per hour for every hour of the year. This will limit the total source potential to emit PM₁₀ to less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7, Part 70, do not apply. Compliance with this limit shall also ensure that the requirements of 326 IAC 2-2, Prevention of Significant Deterioration (PSD) are not applicable.

D.1.8 Particulate Matter (PM) [326 IAC 2-2] [40 CFR 60.92] [326 IAC 12-1] [326 IAC 6-1-2(a)]

- (a) The potential to emit PM from the aggregate dryer/mixer shall not exceed 0.15 pound per ton of asphalt processed, equivalent to less than 204 tons per year when operating at the maximum rate of 300 tons of asphalt per hour for every hour of the year. This will limit the

potential to emit PM from the entire source to less than 100 tons per year. Thus, the requirements of 326 IAC 2-2, PSD, are not applicable.

- (b) Pursuant to 40 CFR 60.92 and 326 IAC 12-1, the opacity of emissions from the aggregate dryer/ mixer stack (SV1) shall be less than twenty percent (20%).
- (c) Pursuant to 326 IAC 6-1-2(a), the PM emissions from the aggregate dryer/mixer shall not exceed 0.07 gram per dry standard cubic meter (0.03 grain per dry standard cubic foot). Compliance with this limit will also ensure that the plant is in compliance with the emission limitation of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot) pursuant to 40 CFR 60.92 and 326 IAC 12-1.

D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for aggregate dryer and drum mixer and any control devices.

Compliance Determination Requirements

D.1.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11] [40 CFR 60.93] [326 IAC 12]

- (a) Within 60 days after achieving the maximum production rate at which the aggregate dryer and mixer will be operated, but not later than 180 days after initial startup, in order to demonstrate compliance with Conditions D.1.7 and D.1.8, the Permittee shall perform PM and PM₁₀ testing of the aggregate dryer/mixer utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) Pursuant to 40 CFR 60.93, compliance with the PM standards in 40 CFR 60.92 shall be determined by using Method 5 to determine particulate concentration and Method 9 to determine opacity. When determining the particulate concentration, the sampling time and sampling volume for each run shall be at least 60 minutes and 0.90 dry standard cubic meter (31.8 dry standard cubic feet).

D.1.11 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal unit heat input when operating on No. 2 distillate oil or No. 4 distillate oil by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the aggregate dryer and drum mixer using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

- (c) In order to demonstrate compliance with Condition D.1.6(a), the Permittee shall demonstrate that weight percent sulfur dioxide in the fuels used does not exceed one half of a percent (0.5%) by weight when operating on No. 2 distillate oil or No. 4 distillate oil using methods described in (a) or (b) of this condition.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.12 Particulate Matter (PM and PM₁₀)

In order to comply with Conditions D.1.7 and D.1.8, the knockout box and baghouse for the aggregate dryer/mixer shall be in operation and control emissions from the aggregate dryer/mixer at all times when the aggregate dryer/mixer is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.13 Visible Emissions Notations

- (a) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (SV1) exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.14 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The Permittee shall record the inlet temperature to the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the inlet temperature to the baghouse is outside the normal range of 250 and 350 degrees Fahrenheit or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. This is required to prevent overheating

of the bags and to prevent low temperatures from mudding up the bags. A temperature reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure and temperature shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.15 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer and drum mixer when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.1.16 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.17 Knockout Box Inspections

An inspection shall be performed each calendar quarter of the knockout box controlling the aggregate dryer/mixer when venting to the atmosphere. A knockout box inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.1.18 Knockout Box Failure Detection

In the event that knockout box failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.19 Record Keeping Requirements

- (a) To document compliance with Condition D.1.6, the Permittee shall maintain records in accordance with (1) through (4) below.

- (1) Calendar dates covered in the compliance determination period;
- (2) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (3) The name of the fuel supplier; and
 - (4) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.1.6, the Permittee shall keep records of the amount of each fuel used at the aggregate dryer burner. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (c) To document compliance with Condition D.1.5, the Permittee shall maintain monthly records the amount and VOC content of each solvent used for emulsified asphalt. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
- (d) To document compliance with Condition D.1.13, the Permittee shall maintain records of visible emission notations of the conveyors, material transfer points and aggregate dryer and drum mixer stack (SV1) exhaust once per shift.
- (e) To document compliance with Condition D.1.14, the Permittee shall maintain the following:
- (1) Records of the total static pressure drop during normal operation once per shift when venting to the atmosphere.
 - (2) Records of the inlet temperature during normal operation once per shift when venting to the atmosphere.
- (f) To document compliance with Conditions D.1.15 and D.1.17, the Permittee shall maintain records of the results of the inspections required under Conditions D.1.15 and D.1.17 and the dates the vents are redirected.
- (g) The Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.20 Record Keeping Requirements [40 CFR 60.116b][326 IAC 12-1]

The two (2) liquid asphalt storage tanks, identified as 11A and 11B, shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b only, Subpart Kb). 40 CFR Part 60.116b requires the Permittee to maintain accessible records showing the dimension of

the storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tanks.

D.1.21 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.5 and D.1.6(a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour (1.5 million British thermal units per hour oil heater).
- (b) Paved and unpaved roads and parking lots with public access.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-5.1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.2.1 Permit No Defense

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.2.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.2.3 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

There are no Operation Conditions specifically applicable to these activities.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Brooks Construction Co., Inc.
Source Address: 727 S. Beiger Street, Mishawaka, Indiana 46544
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: 141-17410-00549

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Brooks Construction Co., Inc.
Source Address: 727 S. Beiger Street, Mishawaka, Indiana 46544
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: 141-17410-00549

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <p>9 This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none">c The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); andc The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16 |
|--|

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: Brooks Construction Co., Inc.
Source Address: 727 S. Beiger Street, Mishawaka, Indiana 46544
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: 141-17410-00549
Facility: One (1) aggregate dryer burner
Parameter: Fuel usage (SO₂ emissions)
Limit: No more than 2,640,000 gallons per twelve (12) consecutive month period of No. 4 distillate oil, with compliance determined at the end of each month, where each gallon of No. 2 distillate oil used shall be considered equal to using 0.947 gallons of No. 4 distillate fuel oil. This limit is equivalent to SO₂ emissions of no more than 99.0 tons per year from the dryer burner.

YEAR: _____

Month	No. 4 distillate oil usage plus equivalent of No. 2 distillate oil to No. 4 distillate oil (gallons)	No. 4 distillate oil usage plus equivalent of No. 2 distillate oil to No. 4 distillate oil (gallons)	No. 4 distillate oil usage plus equivalent of No. 2 distillate oil to No. 4 distillate oil (gallons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Use this form only if only one (1) type of binder is used, or no binder is used in the past 12 months

Source Name: Brooks Construction Co., Inc.
Source Address: 727 S. Beiger Street, Mishawaka, Indiana 46544
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: 141-17410-00549
Facility: Asphalt Plant
Parameter: VOC solvent usage per twelve (12) consecutive month period, with compliance determined at the end of each month
Limit: Cutback asphalt rapid cure liquid binder, less than 97.7 tons VOC solvent usage
Cutback asphalt medium cure liquid binder, less than 133 tons VOC solvent usage
Cutback asphalt slow cure liquid binder, less than 371 tons VOC solvent usage
Emulsified asphalt with solvent liquid binder usage, less than 199 tons VOC solvent usage
Other asphalt with solvent liquid binder, less than 3,712 tons VOC solvent usage
Equivalent to VOC emissions of less than 97.7 tons per twelve (12) consecutive month period, excluding combustion

YEAR: _____
TYPE of Binder: _____

Month	VOC Solvent Usage (tons)	VOC Solvent Usage (tons)	VOC Solvent Usage (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.
9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Use this form only if more than one (1) type of binder is used in the past 12 months

Source Name: Brooks Construction Co., Inc.
Source Address: 727 S. Beiger Street, Mishawaka, Indiana 46544
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: 141-17410-00549
Facility: Asphalt Plant
Parameter: VOC emissions, excluding combustion, based on solvent usage
Limit: Less than 97.7 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, using the following equation:

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Year: _____

Month	Type of Liquid binder	Solvent Usage This Month (tons)	Adjustment Ratio	VOC emitted from each binder This Month (tons)	VOC emitted from all binders This Month (tons)	VOC emitted Previous 11 Months (tons)	VOC emitted 12 Month Total (tons)
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	Other asphalt		38				
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	Other asphalt		38				
	Cutback asphalt rapid cure		1				
	Cutback asphalt medium cure		1.36				
	Cutback asphalt slow cure		3.8				
	Emulsified asphalt		2.04				
	Other asphalt		38				

9
9

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Brooks Construction Co., Inc.
Source Address: 727 S. Beiger Street, Mishawaka, Indiana 46544
Mailing Address: P.O. Box 9560, Fort Wayne, Indiana 46899
FESOP No.: 141-17410-00549

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name: Brooks Construction Co., Inc.
Source Location: 727 S. Beiger Street, Mishawaka, Indiana 46544
County: St. Joseph
SIC Code: 2951
Operation Permit No.: F 141-17410-00549
Permit Reviewer: CarrieAnn Paukowits

On July 31, 2003, the Office of Air Quality (OAQ) had a notice published in the South Bend Tribune, South Bend, Indiana, stating that Brooks Construction Co., Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a stationary drum hot mix asphalt plant with a knockout box and baghouse as controls. The notice also stated that OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

Upon further review, the OAQ has decided to make the following change to the FESOP. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

Change 1:

Condition D.1.14 has been corrected as follows:

D.1.14 Parametric Monitoring

-
- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - ~~Failure to Take Response~~ **Preparation, Implementation, Records, and Reports**. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The Permittee shall record the inlet temperature to the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the inlet temperature to the baghouse is outside the normal range of 250 and 350 degrees Fahrenheit or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - ~~Failure to Take Response~~ **Preparation, Implementation, Records, and Reports**. This is required to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. A temperature reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instruments used for determining the pressure and temperature shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	Brooks Construction Co., Inc.
Source Location:	727 S. Beiger Street, Mishawaka, Indiana 46544
County:	St. Joseph
SIC Code:	2951
Operation Permit No.:	F 141-17410-00549
Permit Reviewer:	CarrieAnn Paukowits

The Office of Air Quality (OAQ) has reviewed a FESOP application from Brooks Construction Co., Inc., relating to the operation of a stationary drum hot mix asphalt plant.

This permit contains provisions intended to satisfy the requirements of the construction permit rules.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

This proposed asphalt plant will not be permitted to operate concurrently with the asphalt plant permitted in F 141-8351-03121, issued on June 19, 1997, and expired on June 19, 2002, located at this same address. The Permittee has indicated that the existing asphalt plant will be removed prior to construction of the proposed plant.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

- (a) One (1) 92.5 million British thermal units per hour aggregate dryer, exhausting through the knockout box and baghouse and stack SV1, fired by natural gas or No. 2 or No. 4 distillate fuel oil.
- (b) One (1) drum mixer, exhausting through the knockout box and baghouse and stack SV1, capacity: 300 tons of hot mix asphalt per hour.
- (c) Two (2) liquid asphalt storage tanks, identified as 11A and 11B, heated by an insignificant 1.5 million British thermal units per hour oil heater, capacity: 20,000 gallons, each.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour (1.5 million British thermal units per hour oil heater).
- (b) Paved and unpaved roads and parking lots with public access.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
SV1	Drum mixer and dryer burner	34.0	4.0	57,000	250
SV2	Hot oil heater	15.0	1.0	350	600
SV3	Tank Vent	12.0	0.33	16	300
SV4	Tank Vent	12.0	0.33	16	300

Existing Approvals

There are no existing approvals for this source.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on June 16, 2003. Additional information was received on July 8, 2003.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 11 of 11 of Appendix A of this document for detailed emissions calculations. This source will use cutback and/or emulsified asphalt. Therefore, the unrestricted potential VOC emissions are conservatively estimated to be greater than 250 tons per year.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	37,099
PM ₁₀	8,613
SO ₂	217
VOC	greater than 250
CO	34.6
NO _x	58.5

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Individual	Less than 10
TOTAL	Less than 25

- (a) The potentials to emit (as defined in 326 IAC 2-1.1-1(16)) of PM₁₀, SO₂, and VOC are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) Fugitive Emissions

Although this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, there are applicable New Source Performance Standards that were in effect on August 7, 1980 (40 CFR 60, Subpart I). Therefore, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Pursuant to 40 CFR 60.90(a), the affected facility to which the provisions of Subpart I apply is each hot mix asphalt facility. For the purpose of Subpart I, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems. Since unpaved roads are not an affected facility of the applicable NSPS, fugitive PM emissions resulting from unpaved roads are not counted toward determination of PSD and Emission Offset applicability.

- (c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Aggregate dryer and drum mixer	less than 204	no more than 66.5	99.0 (oil) 0.247 (natural gas)	less than 97.7 (cutback and emulsified asphalt) 2.23 (combustion)	34.0	57.9	9.99
Conveying/handling, Screening, and Storage	45.2	4.53	-	-	-	-	-
Insignificant Activities	128	28.9	included in aggregate dryer limit	0.036	0.552	0.657	negligible
Total PTE After Issuance	377 (less than 250 without unpaved roads)	less than 100	less than 100	less than 100	34.6	58.6	Single less than 10 Total less than 25

The reasons for the limitations are detailed in the "State Rule Applicability - Entire Source" and "State Rule Applicability - Individual Facilities" sections of this document.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) St. Joseph County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Federal Rule Applicability

- (a) The proposed drum hot mix asphalt plant is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I) because this hot mix asphalt plant will be constructed after June 11, 1973. Pursuant to NSPS, the following apply to this facility:
 - (1) Pursuant to 40 CFR 60.93, performance tests are required as specified in Subpart I and as outlined in Part 60.8.
 - (2) Pursuant to 40 CFR 60.92, on or after the date on which the performance tests are completed, the Permittee shall not discharge into the atmosphere from any affected facility any gases which:
 - (A) Contain particulate matter in excess of 90 milligrams per dry standard cubic meter (0.04 grains per dry standard cubic foot).
 - (B) Exhibit 20 percent opacity, or greater.
- (b) The two (2) liquid asphalt storage tanks, constructed after July 23, 1984, are subject to NSPS, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb) because they each have a capacity greater than forty (40) cubic meters. The storage tanks have capacities greater than or equal to 75 cubic meters but less than 151 cubic meters and store liquid with a maximum true vapor pressure less than 15.0 kiloPascals. Therefore, the tanks are only subject to 40 CFR Part 60.116b, paragraphs (a) and (b), which require record keeping.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

- (a) The unrestricted potential to emit PM from the total of all facilities at this source, other than the unpaved roads, which are not counted towards the applicability of Emission Offset or PSD (see item (b) under "Potential to Emit"), and the aggregate dryer/mixer is 45.2 tons per year. The potential to emit PM from the aggregate dryer/mixer shall not exceed 0.15 pound per ton of asphalt processed, equivalent to less than 204 tons per year when operating at the maximum rate of 300 tons of asphalt per hour for every hour of the year ($0.15 \text{ lb/ton} \times 300 \text{ tons/hr} \times 8,760 \text{ hrs/yr} / 2,000 \text{ lbs/ton} < 204$). This will result in PM emissions from the entire source of less than 250 tons per year, excluding unpaved roads. According to Appendix A and the AP-42 emission factors, the potential to emit PM after control is 18.4 tons per year from the aggregate dryer/mixer. Therefore, the aggregate dryer/mixer will comply with this limitation and the requirements of 326 IAC 2-2, PSD, are not applicable. Operation of the knockout box and baghouse is required at all times shall ensure compliance with this limit.
- (b) The potential to emit PM_{10} is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of PM_{10} pursuant to 326 IAC 2-2, Prevention of Significant Deterioration.
- (c) The potential to emit VOC is limited to less than 100 tons per year to comply with 326 IAC 2-8-4, FESOP. Compliance with that limit will also ensure that this source is a minor source of VOC pursuant to 326 IAC 2-2, Prevention of Significant Deterioration.

326 IAC 2-4.1-1 (New Source Toxics Control)

The potential to emit each individual HAP is less than 10 tons per year, and the potential to emit any combination of HAPs is less than 25 tons per year. Therefore, the requirements of 326 IAC 2-4.1-1 are not applicable.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM_{10} , SO_2 and VOC emitted shall be limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

- (a) The unrestricted potential to emit PM_{10} from the total of all facilities at this source, other than the aggregate dryer/mixer is 33.4 tons per year. The potential to emit PM_{10} from the aggregate dryer/mixer shall not exceed 0.05 pound per ton of asphalt processed, equivalent to no more than 66.5 tons per year, when operating at the maximum rate of 300 tons per hour for every hour of the year ($0.05 \text{ lb/ton} \times 300 \text{ tons/hr} \times 8,760 \text{ hrs/yr} / 2,000 \text{ lbs/ton} < 66.5 \text{ tons/yr}$). This will result in PM_{10} emissions from the entire source of less than 100 tons per year. Since the potential to emit PM_{10} from the aggregate dryer/mixer after control by the knockout box and baghouse is 4.28 tons per year, compliance with this emission limitation is accomplished by using the knockout box and baghouse as controls. Operation of the knockout box and baghouse is required at all times shall ensure compliance with this limit. Thus, the requirements of 326 IAC 2-7, Part 70, do not apply.
- (b) The total use of No. 4 distillate fuel oil by the dryer burner shall be limited to no more than 2,640,000 gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. Each gallon of No. 2 distillate fuel oil used at the dryer burner shall be considered equal to using 0.947 gallons of No. 4 distillate fuel oil. The sulfur con-

tent of the No. 2 and No. 4 distillate oils shall not exceed one half of a percent (0.5%) by weight, based on a monthly weighted average. This will limit SO₂ emissions from the use of distillate fuel oils 99.0 tons per year. The potential to emit SO₂ from natural gas usage is only 0.247 tons per year. Thus, limiting the potential to emit SO₂ from distillate oils to 99.0 tons per year limits the potential to emit SO₂ from the entire source to less than 100 tons per year and no equivalency is needed for natural gas usage. Therefore, the requirements of 326 IAC 2-7, Part 70, do not apply.

- (c) The unrestricted potential to emit NO_x is less than 100 tons per year. Therefore, no NO_x limit is required to make the requirements of 326 IAC 2-7, Part 70, not applicable.
- (d) This source uses emulsified and/or cutback asphalt. Therefore, the unrestricted potential to emit VOC is greater than 100 tons per year. The VOC solvent used as diluent in the liquid binder used in cold mix asphalt production from the plant shall be limited such that less than 97.7 tons of VOC is emitted per twelve (12) consecutive month period. This will limit the potential to emit VOC, including emissions from combustion, to less than 100 tons per year. The limit shall be achieved by limiting the total VOC solvent of any one selected binder as follows (when more than one (1) type of binder is used, the formula in paragraph 6 must be applied):
 - (1) Cutback asphalt rapid cure liquid binder usage shall be limited to less than 97.7 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
 - (2) Cutback asphalt medium cure liquid binder usage shall be limited to less than 133 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
 - (3) Cutback asphalt slow cure liquid binder usage shall be limited to less than 371 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
 - (4) Emulsified asphalt with solvent liquid binder usage shall be limited to less than 199 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
 - (5) Other asphalt with solvent liquid binder shall be limited to less than 3,712 tons of VOC solvent per twelve (12) consecutive month period rolled on a monthly basis.
 - (6) The VOC solvent allotments in shall be adjusted when more than one (1) type of binder is used per twelve (12) month consecutive period rolled on a monthly basis. In order to determine the tons of VOC emitted per each type of binder, use the following formula and divide the tons of VOC solvent used for each type of binder by the corresponding adjustment ratio listed in the table that follows.

$$\frac{\text{Tons of solvent contained in binder}}{\text{Adjustment ratio}} = \text{tons of VOC emitted}$$

Type of binder	tons VOC solvent	adjustment ratio	tons VOC emitted
cutback asphalt rapid cure		1	
cutback asphalt medium cure		1.36	
cutback asphalt slow cure		3.8	
emulsified asphalt		2.04	
other asphalt		38	

- (7) Liquid binders used in the production of cold mix asphalt shall be defined as follows:
- (A) Cut back asphalt rapid cure, containing a maximum of 25.3% VOC solvent by weight in the liquid binder, with 95% by weight of the VOC solvent evaporating.
 - (B) Cut back asphalt medium cure, containing a maximum of 28.6% VOC solvent by weight in the liquid binder, with 70% by weight of the VOC solvent evaporating.
 - (C) Cut back asphalt slow cure, containing a maximum of 20% VOC solvent by weight in the liquid binder, with 25% by weight of the VOC solvent evaporating.
 - (D) Emulsified asphalt with solvent, containing a maximum of 15% VOC solvent by weight in the liquid binder, with 46.4% by weight of the VOC solvent in the liquid blend evaporating. The percent oil distillate in emulsified asphalt with solvent liquid, as determined by ASTM, must be 7% or less of the total emulsion by volume.
 - (E) Other asphalt with solvent binder, containing a maximum 25.9% VOC solvent by weight in the liquid binder, with 2.5% by weight of the VOC solvent evaporating.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and NO_x in St. Joseph County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following for this source, which is located north of Kern Rd. and east of Pine Rd. in St. Joseph County, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires the source not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on June 16, 2003. The plan consists of:

- (a) Fugitive particulate matter (dust) emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following measures:
 - (1) Paved roads and parking lots:
 - (A) Cleaning by vacuum sweeping on an as-needed basis (monthly at a minimum).
 - (B) Power brooming while wet either from rain or application of water.
 - (2) Unpaved roads and parking lots:
 - (A) Paving with asphalt.
 - (B) Treating with emulsified asphalt on an as-needed basis.
 - (C) Treating with water on an as-needed basis.
 - (D) Double chip and seal the road surface and maintained on an as-needed basis.
- (b) Fugitive particulate matter (dust) emission from aggregate stockpiles shall be controlled by one or more of the following measures.
 - (1) Maintain minimum size and number of stock piles of aggregate.
 - (2) Treating around the stockpile area with emulsified asphalt on an as-needed basis.

- (3) Treating around the stockpile area with water on an as-needed basis.
 - (4) Treating the stockpiles with water on an as-needed basis.
- (c) Fugitive particulate matter (dust) emission from outdoor conveying of aggregates shall be controlled by the following measure:

Apply water at the feed and the intermediate point on an as-needed basis.
- (d) Fugitive particulate matter (dust) emissions resulting from the transferring of aggregates shall be controlled by one or more of the following measures:
 - (1) Minimize the vehicular distance between the transfer points.
 - (2) Enclose the transfer points.
 - (3) Apply water on transfer points on an as-needed basis.
- (e) Fugitive particulate matter (dust) emissions resulting from transportation of aggregate by truck, front end loader, etc., shall be controlled by one or more of the following measures:
 - (1) Tarping the aggregate hauling vehicles.
 - (2) Maintain vehicle bodies in a condition to prevent leakage.
 - (3) Spray the aggregates with water.
 - (5) Maintain a 10 mile per hour speed limit in the yard.
- (f) Fugitive particulate matter (dust) emissions resulting from the loading and unloading shall be controlled by one or more of the following measures:
 - (1) Reduce free fall distance to a minimum.
 - (2) Reduce the rate of discharge of the aggregate.
 - (3) Spray the aggregate with water on an as-needed basis.

State Rule Applicability - Individual Facilities

326 IAC 6-1 (County Specific Particulate Matter Limitations)

Pursuant to 326 IAC 6-1-2(a), the PM emissions from the aggregate dryer/mixer, located at a source with the potential to emit more than 100 tons per year of PM in St. Joseph County, shall not exceed 0.07 gram per dry standard cubic meter (0.03 grain per dry standard cubic foot).

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

The potential to emit PM from this plant is limited by an 326 IAC 12, 40 CFR Part 60.90, Subpart I. Therefore, pursuant to 326 IAC 6-3-1(c)(5), the requirements of 326 IAC 6-3 are not applicable.

326 IAC 7 (Sulfur Dioxide Rules)

The potential to emit SO₂ from the dryer burner is twenty-five (25) tons per year or more. Therefore, the requirements of 326 IAC 7-1.1 are applicable. When operating on No. 2 or No. 4 distillate oil, the sulfur dioxide emissions shall be limited to five-tenths (0.5) pound per million British thermal units. Compliance with this limitation shall be accomplished by limiting the weight percent sulfur in the No. 2 distillate oil and the No. 4 distillate oil to no more than one half of one percent (0.5%).

326 IAC 8-1-6 (New facilities; General reduction requirements)

This source is subject to the requirements of 326 IAC 8-5-2, Asphalt paving rules. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 8-5-2 (Asphalt paving rules)

Pursuant to 326 IAC 8-5-1, the requirements of this rule are applicable to the source because it is a new source, constructed after January 1, 1980, including asphalt paving operations. Pursuant to 326 IAC 8-5-2, the Permittee shall not allow the use of asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion, except as used for the following purposes:

- (a) penetrating prime coating;
- (b) stockpile storage mix; and
- (c) application during the months of November, December, January, February, and March.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-2(8), the requirements of 326 IAC 8-9 are not applicable to the two (2) liquid asphalt storage tanks, constructed after July 23, 1984, because the tanks are subject to NSPS, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb).

326 IAC 12-1 (New Source Performance Standards)

- (a) The hot mix asphalt plant is required to comply with the requirements of 40 CFR 60.90, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities, as described in the "Federal Rule Applicability" section of this TSD.
- (b) The two (2) liquid asphalt storage tanks are required to comply with the requirements of 40 CFR Part 60.116b, paragraphs (a) and (b), which require recordkeeping, as described in the "Federal Rule Applicability" section of this TSD.

Testing Requirements

- (a) Within 60 days after achieving the maximum production rate at which the aggregate dryer and mixer will be operated, but not later than 180 days after initial startup, in order to demonstrate compliance with the PM limitations of 60 CFR 60, Subpart I, the PM limitations that make this source a minor source pursuant to 326 IAC 2-2, PSD, and the PM₁₀ limitations of 326 IAC 2-8-4, which also make the source a minor source pursuant to 326 IAC 2-2, PSD, the Permittee shall perform PM and PM₁₀ testing of the aggregate dryer/mixer utilizing methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀.

- (b) Pursuant to 40 CFR 60.93, compliance with the PM standards in 40 CFR 60.92 shall be determined by using Method 5 to determine particulate concentration and Method 9 to determine opacity. When determining the particulate concentration, the sampling time and sampling volume for each run shall be at least 60 minutes and 0.90 dry standard cubic meter (31.8 dry standard cubic feet).

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

The asphalt plant has applicable compliance monitoring conditions as specified below:

- (a) Visible emission notations of the conveyors, material transfer points and aggregate dryer/mixer stack (SV1) exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan -Failure to Take Response. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and

Reports, shall be considered a violation of this permit.

- (c) The Permittee shall record the inlet temperature to the baghouse used in conjunction with the aggregate dryer and drum mixer, at least once per shift when the aggregate dryer and drum mixer are in operation when venting to the atmosphere. When for any one reading, the inlet temperature to the baghouse is outside the normal range of 250 and 350 degrees Fahrenheit or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response. This is required to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. A temperature reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (d) An inspection shall be performed each calendar quarter of all bags controlling the aggregate dryer and drum mixer when venting to the atmosphere. A baghouse inspection shall be performed within three (3) months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.
- (e) In the event that bag failure has been observed:
 - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (2) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (f) An inspection shall be performed each calendar quarter of the knockout box controlling the aggregate dryer/mixer when venting to the atmosphere. A knockout box inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

- (g) In the event that knockout box failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the knockout box and baghouse for the dryer and mixer must operate properly to ensure compliance with 326 IAC 6-1, 40 CFR 60 Subpart I, and 326 IAC 2-8 (FESOP), and to make the requirements of 326 IAC 2-2 (PSD) not applicable.

Conclusion

The construction and operation of this stationary drum hot mix asphalt plant shall be subject to the conditions of the attached proposed FESOP No.: F 141-17410-00549.

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR QUALITY**

Attachment A

**FUGITIVE PARTICULATE MATTER EMISSIONS
CONTROL PLAN**

**Brooks Construction Co., Inc.
727 S. Beiger Street
Mishawaka, Indiana 46544**

ASPHALT PLANT SITE FUGITIVE DUST CONTROL PLAN

- (a) Fugitive particulate matter (dust) emissions from paved roads, unpaved roads, and parking lots shall be controlled by one or more of the following measures:
 - (1) Paved roads and parking lots:
 - (A) Cleaning by vacuum sweeping on an as-needed basis (monthly at a minimum).
 - (B) Power brooming while wet either from rain or application of water.
 - (2) Unpaved roads and parking lots:
 - (A) Paving with asphalt.
 - (B) Treating with emulsified asphalt on an as-needed basis.
 - (C) Treating with water on an as-needed basis.
 - (D) Double chipping and sealing the road surface and maintaining on an as-needed basis.
- (b) Fugitive particulate matter (dust) emissions from aggregate stockpiles shall be controlled by one or more of the following measures.
 - (1) Maintaining minimum size and number of stock piles of aggregate.
 - (2) Treating around the stockpile area with emulsified asphalt on an as-needed basis.
 - (3) Treating around the stockpile area with water on an as-needed basis.
 - (4) Treating the stockpiles with water on an as-needed basis.
- (c) Fugitive particulate matter (dust) emissions from outdoor conveying of aggregates shall be controlled by the following measure:

Apply water at the feed and the intermediate point on an as-needed basis.

- (d) Fugitive particulate matter (dust) emissions resulting from the transferring of aggregates shall be controlled by one or more of the following measures:
 - (1) Minimizing the vehicular distance between the transfer points.
 - (2) Enclosing the transfer points.
 - (3) Applying water on transfer points on an as-needed basis.
- (e) Fugitive particulate matter (dust) emissions resulting from transportation of aggregate by truck, front end loader, etc., shall be controlled by one or more of the following measures:
 - (1) Tarping the aggregate hauling vehicles.
 - (2) Maintaining vehicle bodies in a condition to prevent leakage.
 - (3) Spraying the aggregates with water.
 - (5) Maintaining a 10 mile per hour speed limit in the yard.
- (f) Fugitive particulate matter (dust) emissions resulting from the loading and unloading shall be controlled by one or more of the following measures:
 - (1) Reducing free fall distance to a minimum.
 - (2) Reducing the rate of discharge of the aggregate.
 - (3) Spraying the aggregate with water on an as-needed basis.

"An as-needed basis" means the frequency or quantity of application necessary to minimize visible particulate matter emissions.

Appendix A: Emission Calculations

Company Name: Brooks Construction Co., Inc.
Plant Location: 727 S. Beiger Street, Mishawaka, Indiana 46544
County: St. Joseph
FESOP: 141-17410
Plt. ID: 141-00549
Date: June 16, 2003
Permit Reviewer: CarrieAnn Paukowits

I. Potential Emissions

A. Source emissions before controls

Hot Oil Heater on Oil (oil/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.000</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>141800.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

Hot Oil Heater on Gas (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>1.500</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/MMcf) = (tons/yr)
	<u>1000</u> Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.012</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.050</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.004</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.657</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.036</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.552</u> tons/yr

Dryer Burner (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>92.5 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) = (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.770 tons/yr</u>
P M-10:	7.6 lbs/MMcf =	<u>3.08 tons/yr</u>
S O x:	0.6 lbs/MMcf =	<u>0.243 tons/yr</u>
N O x:	100.0 lbs/MMcf =	<u>40.5 tons/yr</u>
V O C:	5.5 lbs/MMcf =	<u>2.23 tons/yr</u>
C O:	84.0 lbs/MMcf =	<u>34.0 tons/yr</u>

Dryer Burner (gas/>100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000 tons/yr</u>
P M-10:	7.6 lbs/MMcf =	<u>0.000 tons/yr</u>
S O x:	0.6 lbs/MMcf =	<u>0.000 tons/yr</u>
N O x:	280.0 lbs/MMcf =	<u>0.00 tons/yr</u>
V O C:	5.5 lbs/MMcf =	<u>0.000 tons/yr</u>
C O:	84.0 lbs/MMcf =	<u>0.000 tons/yr</u>

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Dryer Burner (gas/>100MMBTU/low nox)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000 tons/yr</u>
P M-10:	7.6 lbs/MMcf =	<u>0.000 tons/yr</u>
S O x:	0.6 lbs/MMcf =	<u>0.000 tons/yr</u>
N O x:	140.0 lbs/MMcf =	<u>0.000 tons/yr</u>
V O C:	5.5 lbs/MMcf =	<u>0.000 tons/yr</u>
C O:	84.0 lb/MMcf =	<u>0.000 tons/yr</u>

(#2 & #1 oil) Dryer Burner <100

The following calculations determine the amount of emissions created by #2 & #1 distillate
fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant: 92.5 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
140000.0 Btu/gal * 2000 lbs/ton

If Rating >100 mmBtu N O x: 24.0 V O C: 0.20	P M:	2.0 lbs/1000 gal =	<u>5.79</u> tons/yr
	PM-10:	3.3 lbs/1000 gal =	<u>9.55</u> tons/yr
	S O x:	71.0 lbs/1000 gal =	<u>205</u> tons/yr
	N O x:	20.0 lbs/1000 gal =	<u>57.9</u> tons/yr
	V O C:	0.34 lbs/1000 gal =	<u>0.984</u> tons/yr
	C O:	5.0 lbs/1000 gal =	<u>14.5</u> tons/yr

(#4 oil/ <100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #4 distillate
fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant: 92.5 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
140000.0 Btu/gal * 2000 lbs/ton

P M:	2.0 lbs/1000 gal =	<u>5.79</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>9.55</u> tons/yr
S O x:	75.0 lbs/1000 gal =	<u>217</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>57.9</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.984</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>14.5</u> tons/yr

(#4 oil/ >100MMBTU) Dryer Burner

The following calculations determine the amount of emissions created by #4 distillate
fuel oil @ 0.000 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant: 0.0 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
0.0 Btu/gal * 2000 lbs/ton

P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

(waste oil/ vaporizing burner)

The following calculations determine the amount of emissions created by waste
fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

0.000

% Ash

0.000

% Lead

Pollutant: 0.0 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
0.0 Btu/gal * 2000 lbs/ton

P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	50.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	11.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	1.7 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr

(waste oil/atomizing burner)

The following calculations determine the amount of emissions created by waste
fuel oil @ 0.000 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.11

0.000

% Ash

0.000

% Lead

Pollutant: 0.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
0.000 Btu/gal * 2000 lbs/ton

P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	16.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	2.10 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.00 lbs/1000 gal =	<u>0.000</u> tons/yr

**** aggregate drying: drum-mix plant ****

The following calculations determine the amount of emissions created by
aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	<u>300.0</u>	tons/hr x	8760 hrs/yr =	<u>36792</u> tons/yr
		2000	lbs/ton		
P M-10:	6.5 lbs/ton x	<u>300</u>	tons/hr x	8760 hrs/yr =	<u>8541</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>300</u>	tons/hr x	8760 hrs/yr =	<u>0.004</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0076 lbs/ton x	<u>300</u>	tons/hr x	8760 hrs/yr =	<u>9.99</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene;
arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**** aggregate drying: batch-mix plant ****

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u> tons/yr
		2000	lbs/ton		
P M-10:	4.5 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u> tons/yr
		2000	lbs/ton		
Lead:	3.30000000E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		
HAPs:	0.0076 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u> tons/yr
		2000	lbs/ton		

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032 * \frac{(U/5)^{1.3} * k}{(M/2)^{1.4}} = \underline{0.003} \text{ lbs/ton}$$

where k= 1 (particle size multiplier)
U = 12 mph mean wind speed (worst case)
M = 5.0 % moisture

P M :	<u>0.003</u> lbs/ton x	<u>300</u> tons/hr x	8760 hrs/yr =	<u>3.64</u> tons/yr	
		2000 lbs/ton			
P M-10:	10% of PM =			<u>0.364</u> tons/yr	
Screening	PM: <u>300</u> tons/hr x	0.0315 lbs/ton	/ 2000 lbs/ton x	8760 hrs/yr =	<u>41.391</u> tons/yr
	P M-10: 10% of PM =			<u>4.14</u> tons/yr	AP-42 Ch.11.19.2

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

A. Tri-axle Truck

<u>0.0</u> trips/hr x					
<u>0.00</u> miles/roundtrip x					
8760 hrs/yr =		<u>0.0</u> miles per year			
For PM		For PM-10			
Ef = {k*[(s/12)^0.8]*[(W/3)^b]/[(Mdry/0.2)^c]*[(365-p)/365]}		Ef = {k*[(s/12)^0.8]*[(W/3)^b]/[(Mdry/0.2)^c]*[(365-p)/365]}			
= 11.24		= 1.27 lb/mile			
where k = 10		2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
s = 4.8		4.8 mean % silt content of unpaved roads			
b = 0.5		0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
c = 0.4		0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
W = 38		9 tons average vehicle weight			
Mdry = 0.2		0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
p = 125		125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
<u>11.24</u> lb/mi x		<u>0</u> mi/yr =	PM	<u>0.00</u> tons/yr	
		2000 lb/ton			
<u>1.27</u> lb/mi x		<u>0</u> mi/yr =	PM-10	<u>0.00</u> tons/yr	
		2000 lb/ton			

B. Front End Loader

<u>33.0</u> trips/hr x					
<u>0.200</u> miles/roundtrip x					
8760 hrs/yr =		<u>57816.0</u> miles per year			
For PM		For PM-10			
Ef = {k*[(s/12)^0.8]*[(W/3)^b]/[(Mdry/0.2)^c]*[(365-p)/365]}		Ef = {k*[(s/12)^0.8]*[(W/3)^b]/[(Mdry/0.2)^c]*[(365-p)/365]}			
= 5.47		= 1.27 lb/mile			
where k = 10		2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
s = 4.8		4.8 mean % silt content of unpaved roads			
b = 0.5		0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
c = 0.4		0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
W = 9		9 tons average vehicle weight			
Mdry = 0.2		0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
p = 125		125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
<u>5.47</u> lb/mi x		<u>57816</u> mi/yr =	PM	<u>158</u> tons/yr	
		2000 lb/ton			
<u>1.27</u> lb/mi x		<u>57816</u> mi/yr =	PM-10	<u>36.8</u> tons/yr	
		2000 lb/ton			

C. Semi Truck

13.0 trips/hr x			
0.20 miles/roundtrip x			
8760 hrs/yr =		22776.0 miles per year	
For PM	For PM-10		
$E_f = \{k \cdot [(s/12)^{0.8}] \cdot [(W/3)^b] / [(Mdry/0.2)^c] \cdot [(365-p)/365]\}$			
8.55	=	1.82 lb/mile	
10	where k =	2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)	
4.8	s =	4.8 mean % silt content of unpaved roads	
0.5	b =	0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)	
0.4	c =	0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)	
22	W =	22 tons average vehicle weight	
0.2	Mdry =	0.2 surface material moisture content, % (default is 0.2 for dry conditions)	
125	p =	125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)	
8.55 lb/mi x		22776 mi/yr =	PM 97.4 tons/yr
		2000 lb/ton	
1.82 lb/mi x		22776 mi/yr =	PM-10 20.8 tons/yr
		2000 lb/ton	
All Trucking		Total PM: 256 tons/yr	
		Total PM-10: 57.6 tons/yr	

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

$$\begin{aligned}
 E_f &= 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15) \\
 &= 1.74 \text{ lbs/acre/day for sand} \\
 &= 1.16 \text{ lbs/acre/day for stone} \\
 &= 1.16 \text{ lbs/acre/day for slag} \\
 &= 1.16 \text{ lbs/acre/day for gravel} \\
 &= 1.16 \text{ lbs/acre/day for RAP} \\
 \text{where } s &= 1.5 \% \text{ silt for sand} \\
 s &= 1.0 \% \text{ silt of stone} \\
 s &= 1.0 \% \text{ silt of slag} \\
 s &= 1.0 \% \text{ silt of gravel} \\
 s &= 1.0 \% \text{ silt for RAP} \\
 p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\
 f &= 15 \% \text{ of wind greater than or equal to 12 mph}
 \end{aligned}$$

$$\begin{aligned}
 E_p (\text{storage}) &= \frac{E_f \cdot sc \cdot (20 \text{ cuft/ton}) \cdot (365 \text{ days/yr})}{(2000 \text{ lbs/ton}) \cdot (43560 \text{ sqft/acre}) \cdot (25 \text{ ft})} \\
 &= 0.058 \text{ tons/yr for sand} \\
 &= 0.039 \text{ tons/yr for stone} \\
 &= 0.008 \text{ tons/yr for slag} \\
 &= 0.019 \text{ tons/yr for gravel} \\
 &= 0.039 \text{ tons/yr for RAP} \\
 \text{Total PM:} &= 0.163 \text{ tons/yr}
 \end{aligned}$$

where sc = 10 ,000 tons storage capacity for sand
 sc = 10 ,000 tons storage capacity for stone
 sc = 2 ,000 tons storage capacity for slag
 sc = 5 ,000 tons storage capacity for gravel
 sc = 10 ,000 tons storage capacity for RAP

P M-10: 35% of PM = 0.020 tons/yr for sand
 35% of PM = 0.014 tons/yr for stone
 35% of PM = 0.003 tons/yr for slag
 35% of PM = 0.007 tons/yr for gravel
 35% of PM = 0.014 tons/yr for RAP

Total PM-10: 0.057 tons/yr

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil		waste oil	
P M:	37094 tons/yr	P M:	37099 tons/yr	P M:	37099 tons/yr	P M:	0.000 tons/yr
P M-10:	8606 tons/yr	P M-10:	8613 tons/yr	P M-10:	8613 tons/yr	P M-10:	0.000 tons/yr
S O x:	0.247 tons/yr	S O x:	205 tons/yr	S O x:	217 tons/yr	S O x:	0.000 tons/yr
N O x:	41.2 tons/yr	N O x:	58.5 tons/yr	N O x:	58.5 tons/yr	N O x:	0.000 tons/yr
V O C:	2.26 tons/yr	V O C:	1.02 tons/yr	V O C:	1.02 tons/yr	V O C:	0.000 tons/yr
C O:	34.6 tons/yr	C O:	15.0 tons/yr	C O:	15.0 tons/yr	C O:	0.000 tons/yr
Lead:	0.004 tons/yr	Lead:	0.004 tons/yr	Lead:	0.004 tons/yr	Lead:	0.000 tons/yr
HAPs:	9.99 tons/yr	HAPs:	9.99 tons/yr	HAPs:	9.99 tons/yr	HAPs:	0.000 tons/yr

B. Source emissions after controls

dryer combustion: gas

P M: 0.77 tons/yr x 0.00050 emitted after controls = 0.0004 tons/yr
 P M-10: 3.08 tons/yr x 0.00050 emitted after controls = 0.002 tons/yr

dryer combustion: #2 oil

P M: 5.79 tons/yr x 0.00050 emitted after controls = 0.003 tons/yr
 P M-10: 9.55 tons/yr x 0.00050 emitted after controls = 0.005 tons/yr

hot oil heater combustion: gas

P M: 0.012 tons/yr x 1.00000 emitted after controls = 0.012 tons/yr
 P M-10: 0.050 tons/yr x 1.00000 emitted after controls = 0.050 tons/yr

hot oil heater combustion: #2 oil

P M: 0.000 tons/yr x 1.00000 emitted after controls = 0.000 tons/yr
 P M-10: 0.000 tons/yr x 1.00000 emitted after controls = 0.000 tons/yr

dryer combustion: #4 oil

P M: 5.79 tons/yr x 0.00050 emitted after controls = 0.003 tons/yr
 P M-10: 9.55 tons/yr x 0.00050 emitted after controls = 0.005 tons/yr

dryer combustion: waste oil

P M: 0.00 tons/yr x 0.000 emitted after controls = 0.000 tons/yr
 P M-10: 0.00 tons/yr x 0.000 emitted after controls = 0.000 tons/yr

aggregate drying:

P M:	36792 tons/yr x	<u>0.00050</u> emitted after controls =	<u>18.4</u> tons/yr
P M-10:	8541 tons/yr x	<u>0.00050</u> emitted after controls =	<u>4.27</u> tons/yr

conveying/handling:

P M:	3.64 tons/yr x	<u>1.000</u> emitted after controls =	<u>3.64</u> tons/yr
P M-10:	0.36 tons/yr x	<u>1.000</u> emitted after controls =	<u>0.364</u> tons/yr

screening

P M:	41.4 tons/yr x	<u>1.000</u> emitted after controls =	<u>41.4</u> tons/yr
P M-10:	4.14 tons/yr x	<u>1.000</u> emitted after controls =	<u>4.14</u> tons/yr

unpaved roads:

P M:	256 tons/yr x	50.00% emitted after controls =	<u>128</u> tons/yr
P M-10:	57.6 tons/yr x	50.00% emitted after controls =	<u>28.8</u> tons/yr

storage:

P M:	0.163 tons/yr x	50.00% emitted after controls =	<u>0.081</u> tons/yr
P M-10:	0.057 tons/yr x	50.00% emitted after controls =	<u>0.029</u> tons/yr

Emissions after controls (combustion plus production) are as follows:

	Gas	#2 Oil	#4 Oil	Waste Oil	
P M:	191	191	191	0	tons/yr
P M-10:	37.7	37.6	37.6	0.0	tons/yr

II. Allowable Emissions

A. The following calculations determine compliance with 326 IAC 6-1, which limits stack emissions from asphalt plants to 0.03 gr/dscf:

$$\begin{aligned}
 & \frac{0.03 \text{ grains}}{\text{dscf}} \times \frac{57000 \text{ acfm}}{460} \times \frac{528}{250} \times \frac{100}{100} \times \frac{5 \text{ \% moisture}}{100} \\
 & \frac{525600 \text{ minutes}}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \underline{45.4 \text{ tons/yr}}
 \end{aligned}$$

To comply with 326 IAC 6-1, the following value must be < amount calculated above. This will also ensure compliance with the NSPS, Subp 18.4 tons/yr

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

$$\begin{aligned}
 & \text{limit: } 0.5 \text{ lbs/MMBtu} \\
 & 0.5 \text{ lbs/MMBtu} \times \frac{140000.0 \text{ Btu/gal}}{70 \text{ lbs/1000gal}} = \frac{70.0 \text{ lbs/1000gal}}{0.493} \\
 & \underline{0.5 \text{ \% to comply with 326 IAC 7}}
 \end{aligned}$$

Sulfur content must be less than or equal to
and to limit SO2 emissions to 99 tons per year or less.

C. The following calculations determine the maximum sulfur content of residual waste fuel oil allowable by 326-IAC 7:

limit:	1.6 lbs/MMBtu		
	1.6 lbs/MMBtu x	<u>0.000 Btu/gal=</u>	0 lbs/1000gal
	0 lbs/1000gal /	<u>100.0 lbs/1000 gal =</u> (check burner type)	<u>0.000</u>
Sulfur content must be less than or equal to and to limit SO2 emissions to 99 tons per year or less.		<u>0.000 % to comply with 326 IAC 7</u>	

D. The following calculations determine the maximum sulfur content of distillate #4 fuel oil allowable by 326-IAC 7:

limit:	0.5 lbs/MMBtu		
	0.5 lbs/MMBtu x	<u>140000 Btu/gal=</u>	70 lbs/1000gal
	70 lbs/1000gal /	<u>150 lbs/1000 gal =</u>	<u>0.467</u>
Sulfur content must be less than or equal to and to limit SO2 emissions to 99 tons per year or less.		<u>0.5 % to comply with 326 IAC 7</u>	

III. Limited Potential Emissions

FUEL USAGE LIMITATION: BASED ON NOx

No limit required

FUEL USAGE LIMITATION: BASED ON SO2

FUEL USAGE LIMITATION FOR BURNER (Gas)

<u>0.247 tons SO2</u> year	*	<u>2000 lbs</u> ton	=	<u>494 lbs SO2</u> year
<u>494 lbs SO2</u> year	/	<u>0.6 lbs SO2</u> MMcf	=	<u>823 MMcf</u> year
<u>823 MMcf</u> year	*	<u>99.0 tons/yr</u> 0.25 tons/yr	=	<u>0.0 MMcf</u> year FESOP Limit

FUEL USAGE LIMITATION FOR BURNER (#2 Oil)

<u>205 tons SO2</u> year	*	<u>2000 lbs</u> ton	=	<u>410946 lbs SO2</u> year
<u>410946 lbs SO2</u> year	/	<u>71.0 lbs</u> 1000 gal	=	<u>5787968 gal</u> year
<u>5787968 gal</u> year	*	<u>99.0 tons/yr</u> 205 tons/yr	=	<u>2788732 gal</u> year FESOP Limit

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclcl}
 \frac{217.0 \text{ tons SO}_2}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{434097 \text{ lbs SO}_2}{\text{year}} \\
 \\
 \frac{434097 \text{ lbs SO}_2}{\text{year}} & / & \frac{75.0 \text{ lbs}}{1000 \text{ gal}} & = & \frac{5787962 \text{ gal}}{\text{year}} \\
 \\
 \frac{5787962 \text{ gal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{217 \text{ tons/yr}} & = & \frac{2640000 \text{ gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

$$\begin{array}{rclcl}
 \frac{0.0 \text{ tons SO}_2}{\text{year}} & * & \frac{2000 \text{ lbs}}{\text{ton}} & = & \frac{0.00 \text{ lbs SO}_2}{\text{year}} \\
 \\
 \frac{0.00 \text{ lbs SO}_2}{\text{year}} & / & \frac{0.0 \text{ lbs}}{1000 \text{ gal}} & = & \frac{0.00 \text{ gal}}{\text{year}} \\
 \\
 \frac{0.00 \text{ gal}}{\text{year}} & * & \frac{99.0 \text{ tons/yr}}{0.00 \text{ tons/yr}} & = & \frac{0.0 \text{ gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$